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EDITORIAL DEPARTMENT NOTE

The standard cost movement received a severe setback during the war years, first, because of the Government's insistence on actual job or contract costs and, secondly, because trained help was generally not available to make the necessary preliminary studies and installations, or to operate the system once it was installed. However, with the onset of a new competitive era, progressive managements generally have become aware of the limitations of traditional accounting systems and have begun to formulate plans for conversion to a standard cost basis. With this thought in mind the present *Bulletin*, devoted entirely to standard costs, is published. While it does not deal with the mechanics of the system, it does present a picture of the essential nature, advantages, and limitations of standard costs.

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Articles published in the *Bulletin* present many different viewpoints. In publishing them the Association is not sponsoring the view expressed, but is endeavoring to provide for its members material which will be helpful and stimulating. Constructive comments are welcomed and will be published in the Forum Section of the *Bulletin*.

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STANDARD COSTS AND THEIR RELATION TO COST CONTROL

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COSTS may be classified, in a general way, into two kinds, historical and predetermined. Historical costs are calculated after production has taken place. They are retrospective and consequently of limited value in measuring and controlling manufacturing efficiency. Excessive costs and operating inefficiencies are not brought to light until after their occurrence and, in many cases, too late to exercise any control.

Predetermined costs, on the other hand, are calculated in advance of production. They may be based on past experience or computed in a scientific manner through the use of statistical data. These costs serve as a guide in controlling manufacturing operations and may be used as a basis of comparison when the final results are known. The practical value of predetermined costs is brought out to best advantage when they are used in connection with standard cost methods.

Standard Costs and Their Advantages

Standard costs essentially are predetermined operation costs. This does not mean that all predetermined costs are standard costs. Those which are based solely on cost averages from past experience or determined on the basis of personal opinion are merely estimates and have no concrete value as standards. Predetermined costs, in order to qualify as standards, must be prepared carefully through the intelligent use of the basic information obtainable from various sources. It is necessary to consider past experience, present conditions, and future indications. It can be said that standard costs differ from other costs in that they represent a reasonably substantial measure of production values, based on a fundamentally sound forecast of operating costs and efficiencies. From an accounting standpoint, standard costs have certain definite advantages over other methods of costing. Some of these advantages are enumerated as follows:

1. They act as a measuring stick, thus providing a common

basis to which actual costs may be compared. Without standards, cost comparisons would be limited to comparing the results obtained in one period with those of other periods, none of which might represent satisfactory performance. The use of standard costs as a basis of comparison provides a definite focal point with reference to which operating efficiencies can be gauged.

2. They are instrumental in reducing the clerical labor and expense connected with the operation of the cost department. This is attributable to the fact that cost systems based on the use of standard costs require fewer records and simpler procedures than other recognized systems.
3. They provide a means whereby effective interpretation of cost data may be obtained through the analysis of variances. The variations from standard on each element of cost are analyzed by the use of formulas which enable the nature of the variances to be ascertained. With this information as a basis, causes can be determined and responsibility can be placed, thus aiding management in controlling costs and reducing inefficiencies.
4. They permit the use of the principle of exceptions, thus affording a great saving of time in analytical work. It is not necessary to spend time in analyzing costs which are within reasonable limits of the standard, as these are presumed to be satisfactory. The work of analyzing variances and determining the reasons for their occurrence is devoted only to the exceptional items.
5. They permit reasonable forecasts of operating costs and enable the management to set selling prices commensurate with expected costs of production. This is especially valuable in cases where the selling price of a commodity must be determined before production begins.

There are other advantages in the use of standard costs, particularly in connection with budgets and inventory valuations. It should be borne in mind, however, that standard costs may be used economically only where particular operations are customarily performed for long enough periods of time to justify measuring time and expense.

Types of Standards

There are two main types of standards. One of these is known as the basic standard, the other as the attainable standard. Basic standards are generally based on prices and production levels which prevail when the standards are established. When once they have been set, these standards are permanent. They remain fixed as long as manufacturing methods remain unchanged. They do not necessarily represent what the cost should be in any given period, but are intended to serve as a stationary basis of measurement to which actual costs may be related. In this respect they are a true measuring stick.

Attainable standards are based on prices and production levels which are expected to prevail under ideal, normal, or actual conditions for the period during which they are to be used. They are intended to represent what the cost should be if the selected conditions prevail and are usually revised at stated intervals to conform with changing conditions. Unless there are extremely unusual changes in conditions, standards of this type should not be revised oftener than necessary, preferably but once each year.

Setting the Standards

Before standards are set, it is necessary to determine which type of standard shall be used. Much has been said relative to the setting of cost standards, particularly with reference to what constitutes a proper standard. Some companies believe in the use of basic standards on the ground that operating results and cost variances of various periods can be related to one another in terms of percentage to a fixed standard. This is made possible because of the common basis of comparison afforded by a fixed standard. Other companies prefer one of the attainable types of standards, believing that changing conditions should be reckoned with and reflected in revised standards. It is obvious that if basic standards are used, changing conditions will tend to widen the span between actual and standard costs, thus creating variances which may be caused by factors beyond the control of the company. Much time might be spent in analyzing variances which would not be considered exceptional if revised standards were in use, thus increasing clerical cost unnecessarily.

Regardless of the various opinions which have been expressed

regarding the setting of standards, two important points should be observed. First, the standard should represent a typical cost which can be used as a basis for cost control purposes. Second, the standard should be capable of attainment, so as to provide an incentive to increased efficiency. If standards are predicated on these two points, they can be made to serve management effectively in cost control functions.

The actual work of setting the standards may be divided into several parts, as follows:

1. A study of the product must be made in order to become familiar with its specifications. It is necessary to determine the kind, quality, and quantity of materials required, operations to be performed, manufacturing methods and equipment to be used, quantities to be produced, and rate of output.
2. Costs of material must be obtained. This necessitates a careful study of sources of supply, market prices, methods of purchasing, inventories to be carried, and allowances for scrap and unavoidable manufacturing losses.
3. Labor costs must be determined. This is usually done by reference to time and motion studies, wage payment or incentive plans in effect at the time, and records of past performance on the same or similar operations.
4. Burden rates must be established in accordance with production levels contemplated. Departmental expense analyses must be prepared; production, service, and administrative departments must be separated; cost centers must be established; expense budgets must be compiled; and methods for allocating and distributing burden must be determined.

All of this work requires close contact and collaboration with the production, engineering, and administrative departments. The cost accountant must rely to a great extent on the information furnished by these departments. A mass of detailed data must be assembled and summarized. On the basis of these data the standards are prepared. After this has been done they should be approved by the management.

Standard Cost Cards

It now becomes necessary to prepare standard cost cards for reference and costing purposes. The form and content of these cards will vary with different companies due to differences in products and amount of detail required. As a general policy it will be found advantageous to have standard data sheets for material, labor, and burden cost. Material sheets show the standard costs of all raw materials and purchased parts. Labor sheets show the standard time and cost of all manufacturing operations performed in the plant. Burden sheets show the standard operating expenses and burden rates at various production levels for each department or cost center. These sheets are used in preparing standard cost cards and bills of material.

It will be necessary to have a standard cost card for each manufactured part, each subassembly, and each final product, showing a standard time and cost breakdown of material, labor, and burden for each operation performed in manufacturing the part, assembly, or product. Briefly, the preparation of these cards consists of recording the kind and quantity of materials, parts, and subassemblies required, listing the manufacturing and assembling operations in their proper sequence, and pricing the data thus recorded, by reference to the standard data sheets mentioned above. Burden is recorded against each labor operation, or in some cases the labor operations are summarized on each card according to cost centers and the burden applied against the labor shown for each cost center.

In preparing standard cost cards for subassemblies or final products, some companies treat all parts and assemblies used as a material charge, while other companies believe that when manufactured parts or subassemblies are required as starting material on a subsequent cost card, material, labor, and burden should be brought forward separately. The latter method is desirable when the total cost of the final product must be shown by cost elements.

The number and complexity of the standard cost cards will depend upon the size of the company, the variety of manufacturing operations, and the character of the products. Naturally, a company which produces a great variety of parts and products will require more cards than one engaged in simple manufacturing

operations. All cards, however, should be interrelated so that the standard cost card for the finished product is, in reality, a concise summary of the material, labor, and burden costs of the completed product, supported by subsidiary cards showing the detailed costs for each manufactured part and subassembly involved.

Accounting Procedures

There are three generally accepted methods for handling accounts in connection with standard cost procedure. It is not our intention to go into the details of these methods, but rather to state in a general way the principles of each.

Under the first method, work in process is charged with the actual cost of material, labor, and burden in the customary manner. Transfers from work in process to inventory accounts for completed parts or finished products are made at standard cost. The balance in the process accounts represents a combination of the standard cost of the unfinished work and the variances between actual and standard costs on the entire production. The work-in-process inventories are revalued at standard cost, and the balance, which represents the difference between actual and standard, is transferred to cost variance accounts. The effect of this method is to clear all variances from work in process at the end of the month, leaving the process accounts valued at standard cost.

In the second method, the cost elements of material, labor, and burden are credited to their respective originating accounts, such as stores, payroll, and factory expense, at actual cost. Work in process is charged with these elements at standard cost, and the difference, which represents the variance between actual and standard, is transferred to the variance accounts. This method has the effect of transferring the cost variances to the variance accounts without passing them through the process accounts, thus keeping all inventory accounts from work in process to finished goods on a standard cost basis, without the necessity of revaluing them at the end of the month as in the first method. Because of this, much clerical labor can be saved, as the subsidiary inventory accounts for work in process, completed parts, and finished goods may be carried by quantity only, the values being reflected in a single controlling account for each major inventory classification. Proof of the subsidiary ledgers would be obtained by pricing the quantita-

tive balances of each account at their respective standard cost, and totaling these to agree with the balance shown by the controlling account. This method can be extended to include the raw material inventory accounts by debiting these accounts with the standard cost of materials at the time of entering the purchase, and charging off the material price variance at once. There is a disadvantage in this policy caused by the fact that material price variances will appear when the material is put into stores, while the quantity variances will appear at a later period when the materials are used. It is preferable to have both price and quantity variances appear together.

The third method consists of debiting and crediting work in process and subsequent inventory accounts at both actual and standard costs. This requires the use of accounts having double debit and credit columns. Actual and standard costs can be compared by looking at the accounts. Variances are seen in total only and will have to be segregated for further analysis.

Variances and Variance Formulas

We have seen that the use of any of the foregoing methods will produce differences between actual and standard costs. It is not enough merely to know the dollar amount of these differences. We must go further and analyze them to determine their cause and endeavor to understand their effect on production costs.

Variances in material and labor costs are of two types, namely, price and quantity. Price variances indicate that the material or labor used was priced at a rate other than standard, while quantity variances indicate that the quantity of material or labor actually used in production was more or less than that called for by the standard. Burden variances are of three types. The first of these, known as the budget variance, represents the difference between budgted overhead and actual expense. The second, known as the idle time variance, is caused by the difference between budgeted and actual production hours. The third, known as the efficiency variance, is caused by the difference between the actual hours used in production and the standard hours allowed for the same volume of production.

All of these variances can be ascertained by the use of formulas which are developed as follows:

Material

1. Actual quantity × actual unit cost = actual cost of material used.
2. Actual quantity × standard unit cost = standard cost of material used.
3. Standard quantity × standard unit cost = standard material cost allowed.

The difference between the first two items is the material price variance, and may be expressed by the following formula:

Actual quantity × (actual unit cost minus standard unit cost) = material price variance.

The difference between the second and third items is the material quantity variance, and may be expressed by the following formula:

Standard unit cost × (actual quantity used minus standard quantity allowed) = material quantity variance.

Labor

1. Actual hours × actual rate = actual cost of labor performed.
2. Actual hours × standard rate = standard cost of labor performed.
3. Standard hours × standard rate = standard labor cost allowed.

The difference between the first two items is the labor price variance, and may be expressed by the following formula:

Actual quantity × (actual unit cost minus standard unit cost) = material price variance.

The difference between the second and third items is the labor quantity variance, and may be expressed by the following formula:

Standard rate × (actual hours minus standard hours) = labor quantity variance.

Burden

1. Total factory expenses for the period = actual overhead.

2. Standard factory expense allowed for the period = budgeted overhead.
3. Actual production hours × standard overhead rate = standard overhead cost of actual production hours.
4. Standard production hours allowed × standard overhead rate = standard overhead cost allowed.

The difference between the first and second items is the budget variance, and may be expressed by the following formula:

Actual factory expense — budgeted overhead = budget variance.

The difference between the second and third items is the idle time variance, and may be expressed by the following formula:

Budgted overhead — (actual hours × standard overhead rate) = idle time variance.

The difference between the third and fourth items is the efficiency variance, and may be expressed by the following formula:

Standard overhead rate × (actual production hours — standard hours allowed) = efficiency variance.

Disposition of Variances

After the variances have been determined in accordance with the foregoing formulas, the question arises as to their disposition. There has been no universal agreement among accountants as to the proper method of disposition. Some say that all variances should be written off to profit and loss or cost of sales every month, while others believe they should be prorated between cost of sales and inventories of work in process and finished goods. There is a third group which holds that quantity variances should be written off, while price variances should be spread over inventories and cost of sales.

Other methods have been suggested, but the answer to the question of disposition depends in a large measure upon the type of standard in use and the adequacy of the standards for expressing inventory values. For this reason an all-inclusive method of disposition would be poor policy, and it is therefore suggested that the variances be treated as follows:

First, any variances which are caused by inactivity, waste, or extravagance, should be written off as they represent losses. They should not be deferred by capitalizing them in the inventory accounts. This would include quantity variances on material and labor as well as idle time and efficiency variances on burden.

Secondly, an inventory reserve account should be established and charged with part of the price and budget variances to an extent which would bring the work in process and finished goods inventories up to, but not in excess of, current market values. The rest of the price variance amounts should be written off, as they represent excessive costs. In this way the inventory accounts themselves will be valued at standard cost, while the inventories shown on the balance sheet will, as a whole, be shown at reasonable values through the use of the inventory reserve account. In addition, losses caused by excessive costs and inefficiencies will be shown in the operating statement for the period in which they occur.

Pointing the Way to Cost Control

The cost accountant is in a unique position to stimulate the interest of the management in the control of costs through the medium of the reports which can be prepared as a result of the variance analyses. Cost control is an executive function which depends mainly upon two things, the proper presentation of cost reports and the exercise of prompt action where required.

Let us consider the steps required in setting up an organized control plan. First, a definite goal must be established with reference to manufacturing costs. In setting this goal, operating efficiencies must be determined, and production methods must be planned to accomplish a smooth flow of work through the plant. The cost aspect of the goal thus established best can be expressed in the form of the standard cost data sheets which are assembled prior to the setting of the cost standards.

When the final results are known, they must be compared with the standards in a manner which will bring out the variances in respect to commodities, operations, departments, cost elements, or in any other manner deemed necessary to portray a clear pic-

ture to the management. After this has been done the variance must be analyzed to determine the causes. Each of these must be investigated to determine the underlying reasons and to fix the responsibilities at the proper source. The variance shows the need for control; the cause directs the management to the proper channels for investigation; the underlying reason indicates the source; and the responsibility determines the exact place to exercise control.

Next, it becomes necessary to take corrective action to prevent recurrences of the waste and inefficiencies resulting in excessive costs. Rarely is the cost accountant in a position to take such action. His functions are generally confined to the summarizing of basic information, analyzing the results, and preparing cost reports for the higher executives. He can, however, become a valuable asset to the management by enlisting the aid of all responsible persons in the organization, making them cost conscious by furnishing them with regular reports on their operating results, and contributing to their understanding of these reports by offering them the opportunity to review with him the information shown thereon. In this way he can help them to acquire a clearer understanding of the results and their effect on departmental efficiencies.

Summary

Standard costs are an effective instrument of cost control if certain points are observed in their application. As a basic guide these points may be listed as follows:

1. Set the standards properly.
2. Distinguish between controllable and noncontrollable items.
3. Give due consideration to the effect of varying production levels.
4. Inform the management of the results promptly.
5. Point out the exceptional items.
6. Emphasize the need for *active* and *immediate* control.
7. Keep the standards up to date.

If the cost accountant will keep these points in mind, he will have the means of making a valuable contribution to management in the important function of cost control.

THE RELATIONSHIP BETWEEN STANDARD AND ACTUAL COSTS

By Cyril F. Gamber,
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WITH the end of the war and the withdrawal of the Government as a principal customer, management is faced with the necessity of carefully determining and controlling the costs of products which must be sold in a highly competitive postwar market. As a consequence, many cost accountants may anticipate requests for the installation of standard cost systems, in cases where convincing demonstrations to management have been made that standards must be employed if costs and profits are to be kept under proper control. Under the circumstances it is regrettable that a considerable segment of the cost accounting profession still clings to the opinion that a standard cost system represents a method of cost accounting which is opposed to actual cost finding. This misconception of the relationship between standards and actual costs has engendered many controversies which in the past have retarded the growth of the standard cost principle; its existence today, which is evident in current discussions of the subject, must be dispelled completely if progress is to be made in the field of modern cost accounting.

It may be timely, therefore, to present the following outline which attempts to review the true relationship of standards to actual costs by summarizing the objectives of standard costs and contrasting them with a job cost system, which for the purpose of this outline is deemed to represent an actual cost system.

Objectives of the Standard Cost System

The principal objectives of standard costs may be summarized as follows:

1. To provide a reliable medium for estimating costs, and thus, sales prices.
2. To plan production.
3. To control manufacturing operations.
4. To reveal causes for variations in costs.

5. To provide a simplified method for computing actual costs and cost of sales.

Standards do not purport to be costs; they are predeterminations of costs and complement an actual cost system. Their functions in the cost accounting system are to provide a convenient and flexible means of computing actual costs, inventories, and cost of sales and to determine the extent of, and reasons for, variations of actual costs from expected results. The application of standards to the cost system does not eliminate the keeping of actual costs; it merely changes the basis upon which actual costs are recorded, eliminating many burdensome details in the process.

Comparison of Job Cost and Standard Cost Systems

The basic principles underlying the job cost system are elementary and obvious. Costs of material, labor, and burden are accumulated against specific work orders. The aggregate costs as accumulated represent the total cost of the order; the unit cost of production is obtained by dividing the total cost of the order by the quantity of product produced.

Under a standard cost system, costs are not collected under work orders. Such a system requires the preparation of files of standard costs of material, labor, and overhead for each operation in each department for each article or part, assembly, etc., manufactured. Moreover, the standard cost plan provides for the development of variances in the books of account by a comparison of production priced at these standard costs with actual costs. Such variances constitute a measure of performance and a correction factor which may be applied to standard costs to reflect actual costs.

Disadvantages of the Job Cost System

The job cost system has numerous disadvantages. Under such a system it is necessary to figure costs every time an article is made. A great amount of detail work and duplication of effort is involved in collecting and distributing the costs to work orders. Where further details of costs are required, such as the cost of parts of a product, an assembly, or the cost of individual operations, it is frequently impracticable to sort and summarize the data without the aid of tabulating equipment. The work must be finished before the total cost can be determined; consequently the cost

of completed units cannot be found until all units manufactured under the order are completed.

Under the standard cost system, the development of variations in actual costs is semiautomatic, whereas under the job cost system the determination of the reasons for fluctuations from estimates or expectations requires painstaking analysis of the costs.

Advantages of the Standard Cost System

These disadvantages are overcome by the application of standards to the cost system. Under the standard cost plan it is necessary to figure costs only at intervals, depending upon the frequency with which changes occur in design, formulas, processes, or rates. It is less expensive to operate because the idea embodies the principle of exceptions. Frequently recurring cost transactions or activities are made matters of regular routine and may be recorded in total for operations or department, rather than for specific orders. Actual costs which conform to the standards set for them require no further analysis; those costs which depart from predetermined costs are analyzed currently, permitting prompt application of corrective measures. In addition to disclosing departures from expected costs in total, the standard cost system can be made to reveal the cause of the variance, indicating the extent to which material prices and quantities, labor rates and man efficiency, and other factors, such as spoilage and shrinkage, have affected the actual cost.

Standard costs are invaluable as a basis for estimating selling prices, and also in the preparation, operation, and interpretation of the budget because of the ease with which budgeted units may be expressed in terms of materials, labor, and expense.

Objections to the Use of Standards

Opponents of standard costs usually claim three disadvantages to the use of standard costs. One of these claims is that the establishment of standard cost prices and files is a difficult and costly procedure. It cannot be emphasized too strongly that the establishment of the standard cost system requires considerable study and effort, but on the other hand it should be pointed out that the installation cost is an investment which should pay dividends in the form of cost control and economy of clerical effort. Once the

standard cost files are established, subsequent revisions may be made without difficulty; in many instances it is found necessary to revise the standards not oftener than once a year.

The second disadvantage claimed by those who oppose standard costs is that the variations carried to the profit and loss statement cannot be accurately apportioned to lines of product. This objection has no merit if the basic standard cost system is employed, because under that method of applying standard costs, variances are applied to reflect actual costs in the inventory accounts, which may be broken down by product lines in appropriate groups so that the margin of probable error in applying costs to sales is negligible. When current or ideal standards are utilized, the distribution of these variations by product lines is admittedly more difficult, but may be accomplished with satisfactory results if the standards are correctly set and frequently revised.

The third, and most frequently raised objection to standard costs, is that under this plan inventories are carried in the balance sheet at standard cost. Here again, this argument is without foundation if the basic standard cost plan which converts the standards to an actual basis is employed in the accounts. Where the current or ideal system is in use, the inventory accounts do represent standard costs, but if the standards are properly set and currently corrected, there should be very little variance between inventories at standard and at actual cost. If a serious difference does exist, due to the operation of unforeseen contingencies, it is recorded in the variance accounts, and the inventory may be adjusted at any time to reflect those elements of cost fluctuations which created the variance. The problem is no different than that created in an actual cost system by a sudden drop in market prices, in which event inventories carried on the books at so-called actual cost must be adjusted to the lower of cost or market by the application of write-downs or reserves.

Fundamentals of Standard Cost Installations

The statement has been made that the only objections to a standard cost system are the probabilities that it may be inefficiently installed or indifferently operated. If this observation be true, it might be well to reconsider certain fundamental principles which should be observed when the system is installed. In establishing

the standard cost files, it should be realized at the outset that the matter of setting standards demands the cooperation of the engineer and the cost accountant. It should be borne in mind that the standards are units of measurements which will be used as a measure of judgment and control over actual results. If those units of measurement are to fulfill their purpose, they must be related to actual conditions of operation. There are no short cuts in setting standards; they must be established on the basis of clear thinking, diligent research, and attention to detail.

Little, if any, reliance should be placed on past costs. Consideration, however, should be given in the standards to reasonable expectations of operating efficiency. The rates must not anticipate results impossible of achievement, but rather should be set at a level which will stimulate efficiency.

Once the standards are set the system should be designed so that the standards function as an integral part of the accounting system, and the procedure should be arranged to provide a medium of inventory control from raw materials through cost of sales.

The number and character of variance accounts provided should be sufficiently comprehensive to facilitate the analysis of fluctuations between standard and actual costs so that trends of cost may be promptly discerned and brought under control.

Conclusion

There is nothing radical in the idea of applying standards to the cost system. All businesses have standards of some sort against which they measure performance, and to some extent they are employed in practically all cost accounting systems. This may be illustrated in the case of the application of overhead, which in most cost systems is absorbed on the basis of normal or standard rates.

Standards and actual costs are not opposed to one another. The application of standard costs to the cost accounts, on the contrary, has the effect of enlarging or extending the information which may be obtained from the cost system. The so-called actual cost system merely answers the question, "What happened?" and the answer may yield satisfaction or disappointment. A standard cost system, on the other hand, reveals what is happening as the work progresses and incidentally answers a much more important query, "Where are we going?"

DEVELOPMENT AND MAINTENANCE OF STANDARDS

By Maurice W. White, Office Manager, Grinnell Co., Warren, Ohio

DURING the past ten years we have taken cognizance of a considerable number of industries and companies that have converted their cost systems to some form of a standard cost system. No doubt such a decision was not hastily made but one which had been concluded after a considerable amount of study, research, and analysis. This study convinced them of the distinct advantages in the adoption of a standard cost system as compared with whatever benefits they were deriving from their present cost systems. Notwithstanding such preparatory work, many standard cost installations have failed to accomplish their intended and expected purpose because those responsible for the installation failed to recognize certain prerequisites in the development of proper standards. They had the enthusiasm for the task and the knowledge of the advantages to be obtained, but they failed to apprehend the basic requirements of a successful installation. What then are these prerequisites?

Basic Requirements

It is a foregone conclusion that management today must of necessity consider that they are out of the "horse and buggy days" and that the rule of thumb method of management has been succeeded a long time ago by scientific management. Therefore, we must consider the various elements to be recognized under scientific management. The fundamental requirement is that whatever standards are established be based on research rather than on past experience. Such standards would be basically more dependable and accurate than those which might have been secured by reference to past experience.

These scientifically-established standards should include labor and material, each of which has been determined through the use of definite machinery and tools in coordination with such planning, routing, and scheduling as to secure the most efficient means of production. Obviously, such steps should not be undertaken until a thorough study of the product to be manufactured is made. This

involves sale at a reasonable margin of profit since, after all, that is the main purpose of production. The study should include a consideration as to type of raw material to be used to secure the finished product. We have found that due to necessity during the war substitution of material had to be resorted to, and often these materials were found to be an improvement as to appearance, style, and cost over the original basic materials or those customarily used. For example, with the scarcity of brass it was found through laboratory tests that malleable iron could be substituted without serious difficulty as to wear or quality and even at a lower price. Also in many cases plastics were substituted for metals and produced as durable and in most cases as economical a product as might be secured from stampings and die castings.

One of the most important phases of our study is the quality of the product desired, the tolerances required if any, and the style and appeal to the customer public. With the decision as to the material, we can then progress to the determination of the method and sequence of processing those materials in the most economical manner possible, such information being developed through engineering specifications.

Material Usage Standards

Raw material inventories can be maintained at a minimum through the preparation from engineering specifications of standard material lists which ultimately form the basis for material standards. These lists should specifically provide for reflecting the quantity consumed in each operation together with standard mixtures and yields and allowances for unavoidable scrap and material losses. This is a most important detail if you anticipate reflecting actual yields against standard yields, actual scrap losses against standard scrap losses, etc. Many materials are admittedly subject to shrinkage or unavoidable deterioration while in storage or in various processes of operation. In the textile industry, for instance, consideration must be given to losses in spooling and dyeing, dressing, weaving, and shrinkage upon dyeing and finishing. However, such allowances should be predicated on minimum scrap or shrinkage allowances. The determination of the amount of allowance for losses which results from unpreventable inaccuracy on the part of the operators of machines is a more difficult matter,

for here it becomes necessary to distinguish between that which cannot be avoided through exercise of a reasonable amount of care and that which represents carelessness, inattention, and unnecessarily faulty work.

Another advantage in the preparation of a standard material list is the opportunity afforded for an analysis of items not ordinarily carried in inventory and which might be readily eliminated if standard materials were substituted. For instance, in an assembly we might ascertain that a particular machined casting might be indicated where a stock-turned part might be advantageously substituted at a lower cost than that originally planned. It is, therefore, extremely important that the original standard material lists be thoroughly analyzed to secure the most efficient use of materials, and this is particularly true where they represent purchased common parts, the sizes and kinds of which could readily be standardized on a limited number of sizes.

A system of adequate records of excess withdrawals of raw materials and parts and of spoilage and scrap production must be maintained in order that related cost variances may be explained and traced to their sources in order to effect their correction and elimination by responsible individuals. In the outline of the foregoing requirements it is presumed that in setting up these standards there is adequate physical control over the processes of procurement, storage, issuance, and handling of materials from raw material stores to finished stores and shipment to customers. Such a control would ordinarily provide:

1. Accurate budgeting of material requirements.
2. Proper purchasing routine.
3. Facilities for storage of materials.
4. Effective control of material issuances.
5. Suitable storage and shipment of finished materials.

Unless the above activities were properly controlled, it might not be possible to obtain accurate cost information to present, analyze, and control cost variances effectively and to give management a true picture of actual conditions.

Labor Usage Standards

In establishing direct labor cost standards, we again must consid-

er basic facts to be obtained for standards accurately set. We must standardize the conditions of work surrounding each operation with which we are concerned and give suitable consideration to the following:

1. Condition of machine and tools.
2. Availability of material to machine.
3. Coordination of materials and facilities.
4. Training of worker on machine.

First of all, it is desirable that in the establishment of labor standards proper consideration should be given to the machine on which the assigned work is to be performed. The machine and related tools should be in satisfactory condition for the most efficient production of the work required, since we cannot expect the desired or standard performance unless standard conditions absolutely are present.

Standardization of work

Many cost standards have been established on purely hypothetical working conditions which are not present during actual production, nor were any arrangements made to provide such conditions in actual performance. In establishing standards for labor it is vitally important that such factors as layout, condition of equipment and tools, etc., be standardized and actually present under true operating conditions. Otherwise we simply develop a fictitious standard, portray variances to management which it cannot immediately comprehend until a lengthy and thorough analysis reveals that conditions are entirely different than those on which standards were predicated. In addition, it is most important to make provision for supplying the operator with instructions for the operation of the machine or directions for each specified job and to arrange for advance training of these operators on specific machines. Standardize the operator!

The standard should also give proper consideration to the availability of the supply of material to the operator and the continuity of that supply through proper coordination of the internal transportation system. The latter may take the form of conveyors or of any other mechanical or manual means for insuring not only an uninterrupted supply of material, but also removing the finished

production of the machine to the next operation or to sub or finished storeroom. Too many times this feature has been neglected with the result that charges for waiting on materials begin to reflect themselves in the labor standard as "off variances."

Required Results of Labor Standards

On the premise that the direct and indirect labor standards thus developed do reflect actual operating conditions, a comparison of the actual versus the standard should reflect the following:

1. Labor efficiency in performing the task.
2. Indirect labor.
3. Rate variance.
4. Idle time.
5. Reoperative labor.
6. Allowances for learners, shift premium, and overtime premium.

All such labor can be controlled daily, weekly, or monthly in accordance with the requirements dictated by the situation at the moment or by managerial policy. This control can be exercised by means of a labor control report, and immediate attention can thus be directed to the source of the unusual variances as labor in many industries forms a very important part of the controllable portion of the manufacturing cost.

Establishment of Standard Times for Direct Labor Operations

While it is possible to reflect variances based on standards established by past performance, such practice lacks the required basis for proper analysis and thus, to a large degree, defeats our original intent to control operational costs. Time and motion studies are commonly used to establish standard time allowances on the basis of "the one best way to do the job." They also take into account the physical ability of the individual to secure maximum output from the machine or the operation performed. Thus, scientifically based standards analyze the manual and machine functions into the various elements of the job to be performed and provide proper and just allowances for:

1. Efficiency of the worker.
2. Fatigue incident to the particular job.

3. Personal needs.
4. Setup of machine.
5. Handling of materials.

Standards so established provide the basis for a complete analysis of the variances resulting from actual performance and enable management to take steps to correct negative conditions. Such analysis is not available where standards have been established by averaging past performance or are otherwise based on estimates.

Manufacturing Expense Standards

Up to this point we have concerned ourselves with the establishment of standards for material and labor; however, the matter of control of manufacturing overhead is of equal importance to cost accountants and to management, for it represents a relatively high portion of the manufacturing cost in many industries. Obviously it is essential that manufacturing be departmentalized and sufficient study be given to the separation of the fixed from the controllable departmental overhead costs. True variable or controllable costs increase or decrease in proportion to the volume of the production going through a department; therefore, they are controlled by maintaining them within the limits established by such current activity. Hence, in setting up the controllable expense standards we must be prepared to establish them on an attainable basis in order to create and sustain continuous interest on the part of operating men in maintaining their actual controllable expenses within the established budgets.

Material Price Standards

Before preparing standard prices for raw materials and purchased parts, arrangements should be made to assign codes for proper identification; complete specifications for each item also should be recorded. The complete list is reviewed by the cost accounting department with the purchasing department in setting price standards which usually are effective for the year. Full consideration should be given to company policy as to the desirable basis for pricing which may reflect any of the following:

1. Expected actual costs.
2. Normal cost which gives emphasis to a study of the normal price level.

3. Average of prior years' costs over a ten-year cycle which takes into account subnormal and abnormal conditions and cyclical influences.

Thus, after such material price standards have been established, studied, and accepted, management can effectively measure purchasing policies adopted and purchased by the purchasing division. However, these standards must be fairly and reasonably determined. If they are too high, favorable purchase price variances are too easily secured. At the same time high material price standards may stifle potential sales or misrepresent the gross margin.

Standard Labor Rates

The translation of operation time to labor costs involves the study of rates of pay for various operations within the department. This routine is greatly facilitated where job analysis has been made and labor grades established. After the decision has been reached either as to the selected mid-point or maximum for each grade, a composite rate for the department or machine center can then be established. The task of setting these rates in the past several years has been greatly simplified because definite rates have been included in labor contractual agreements. The rates determined can either be interpreted into hourly rates or used as a basis for piece rates or any other incentive plan. It may be a company policy, however, to give some consideration in these rates for the inclusion of overtime or shift bonuses, although many companies follow the practice of charging off such allowances directly to a special variance account. An accurate labor rate should include workmen's compensation insurance and old age benefit costs together with state unemployment taxes in those states where employer payments are in effect.

The use of standard departmental or center direct labor rates simplifies standard costing and is intended to provide a measuring stick as to proper use of labor.

Normal Capacity

On what basis shall our fixed expenses be absorbed? This is an extremely controversial subject, and it has been the subject of debate among many well-known authorities. Shall our basis be practical capacity, average capacity to make and sell, capacity to pro-

duce giving consideration to bottleneck departments, or capacity to sell? The basis selected depends considerably upon the industry involved, but many accountants fail to give full emphasis to a common-sense study of the problem. This involves the basis which would provide us with costs within the range of market competition, since after all, in a free enterprise system, it is competition which establishes the selling prices. Thus, some companies, for instance, find that they must base their costs on a two-shift schedule. Failure to attain that activity in the ensuing year reflects unabsorbed fixed expenses, but this is more than offset by the gross margin of profit. Shall we recover in our costs depreciation, taxes, and insurance on unused facilities. If we so elect, will such inclusion bring about a prohibitive cost or suppress the enthusiasm of the sales division to secure much, if any, sales volume of that particular product? I believe that we must determine through study a practical application to our own problem as to a proper basis for normal capacity.

Maintenance of Standards

I reiterate that many standard cost installations are not fully or completely successful because of inadequate maintenance of the standards established through exhaustive study and research. It is my personal opinion that complete files covering all data should be maintained in the cost accounting department to include:

1. Material quantities.
2. Material prices.
3. Labor rates.
4. Standard times.
5. Normal capacities.

It is only through this centralized control that standards may properly be maintained and revised when necessary. Such revision ordinarily takes place annually except where material substitutions are made or operations are considerably modified to the extent of requiring reductions or increases in labor costs or operational time. Standards should not be changed where temporary modifications of operating practices exist, but should be allowed to stand in order to measure the effect on such temporary actions. Some

industrial engineers advocate the use of basic standard costs in that comparisons of results from year to year can be readily determined. Such comparisons cannot be made when standards are changed or modified each year. It is a fact, however, that under systems requiring changes in standard costs, equitable comparisons can be made of actual performance from year to year by use of correctional factors.

Conclusion

As a final emphasis in this discussion, let me point out that standard costs are only as effective as the basis on which they have been prepared. If the base is deficient, then it is similar to building a house with a mud foundation and erecting the framework with seasoned quality lumber. The complete organization of our standards must be substantially built to the extent that they may be subjected to thorough examination by management. Now in order to retain control of appropriately established standards, positive maintenance of them should be assured to provide a precise appraisal of results. This requires that the cost organization be made fully aware of changes in manufacturing processes that are being considered or of those modifications of manufacturing which the operating organization elects to put into practice.

The cost organization must be alert and fully awake to the responsibilities assigned to it. It cannot maintain adequate and accurate cost records or cost standards by being confined to the four walls of its office. It must possess an inquisitive nature in the exploration of all cost facts.

USEFUL BY-PRODUCTS OF A STANDARD COST ROUTINE

By Maitland A. Smith, Supervisor of Costs, General Electric Co., Fort Wayne, Ind.

WITH the introduction of standard costs, emphasis was placed on furnishing cost information to the management to aid in the control of operations rather than on the accumulation of historical product costs as had been the case in the past. Much has been written along this line, and it is not intended that it be repeated here. However, it may be necessary to bring out certain points which are fundamentals of standard costs in order to present the specific points under consideration satisfactorily.

Any standard cost system should have as its goal the following three basic considerations:

1. Supply control information to management.
2. Compile product costs.
3. Supply a basis for costing inventories.

These functions are basic, and thus little space will be devoted here to their analysis. Instead emphasis will be placed on the other uses which can be made of the information gathered for the basic considerations as listed. Thus these may be considered as by-products of the standard cost routine.

The following list includes some of these so-called by-products. This is by no means intended to be a complete coverage of the field, since the items will differ widely in various industries. Rather it is intended that these be merely representative of what can be accomplished:

1. Cost figures for cost reduction programs.
2. Measurement of supervisors.
3. Aid to internal auditing.
4. Control of valuable materials.
5. Physical inventory.
6. Financial planning.

Cost Figures for Cost Reduction Programs

In the period to come there is no doubt that many industrial

enterprises are going to be forced into comprehensive cost reduction programs if they are to earn a satisfactory return on their investment. The basic axiom of any cost reduction program is: "There is a cheaper way." This has yet to be proved wrong, and thus the answer to lowered costs rests in finding that cheaper way, whether it be in design, materials, manufacturing methods, clerical methods, or some other field. At this time it would be well to consider the differentiation between cost reduction and cost control. For purposes of this discussion, the former means the lowering of the standard level, while the latter is the control of the current level with relation to the standard. From this it is apparent that the standards used as the basis of this system are attainable under normal conditions.

Many critics of standard costs attempt to point out that the routine would be of little help to a cost reduction program because the standards are not changed currently. With some installations this criticism may have some merit. However, if the routine has been set up properly, it will be found that it has been necessary to keep the standard costs of all component parts up to date in order to compile the applicable variances properly. From this information it is a relatively simple matter to maintain cost trend sheets showing the basic material and labor for the major parts of each high production device. This then gives the persons concerned the latest standards regardless of what product cost is used for accounting purposes.

In order to conduct a cost reduction program successfully it is necessary to organize for it. With the rush of production activities, it will be found that few reductions will develop on their own. It takes persistent follow-up by someone to bring these studies through to a conclusion. Thus it is apparent that this responsibility must be allocated to some individual or committee. Once this responsibility is assigned, it is equally important that a method be established to measure the results. Here a standard cost routine again has a definite contribution to offer, inasmuch as the cost level changes can be measured by isolating such disturbing influences as varying material prices, labor efficiency, labor rate changes, etc. In other words, the over-all costs may increase more than enough to offset the reductions obtained by the cost reduction program. However, it will be possible to show how much *more*

they would have increased without the offsetting influence of the organized program.

Measurement of Supervisors

Since standard costs are in reality nothing but a further extension of budgetary control, an excellent opportunity is presented for the measurement of supervisors, particularly those in the factory itself. One cardinal principle must be observed, however, if this is to be a success; namely, that the standard or budget must not be set in the front office, but that the man being measured must be a party to it. As a matter of fact, this is to be desired from other viewpoints, but it is a *must* if the supervisor's full cooperation is to be obtained. Too many times a supervisor is consulted only when his performance is below par. With the standard cost form of measurement, it is possible to combine cost control and cost reduction with the ultimate goal of reducing the standard by continually bettering the existing budget. This can be aided by the management giving proper recognition to those individuals who are able to achieve that result.

Aid to Internal Auditing

Standard costs may be of aid to the internal auditing staff in several ways, but mainly through an analysis of unusual variances. For example, let us take the case of an audit of vouchers paid during a certain period. Before starting such a review, it would be of great help to the auditors to examine the material price variance data for the period to be reviewed. This would disclose the trends with relation to the standard and thus furnish leads as to where the auditors might concentrate their attention. The same conditions might be applied to a payroll audit. Since excesses over the standard method must show up as a variance in some form or other, an analysis of these variances might disclose a condition that otherwise would be very difficult to isolate or might be passed over entirely.

Control of Valuable Materials

In industrial plants one generally thinks of valuable materials as gold, silver, platinum, diamonds, etc. However, there are many cases where a material of relatively low unit value is used in such

a quantity that the aggregate value is many times that of the high unit value items. An example of the latter would be lacquer in a plant manufacturing refrigerators. Both types will be included in this discussion.

From the basic data upon which the cost standards were based, it is possible to set up a usage rate for any material where the value and subsequent risk involved will warrant the clerical expense. A simple comparison can be made of the actual quantity used with what should have been used. The latter is found by multiplying the standard material allowance by the standard unit cost. This comparison may be made monthly, weekly, or daily, depending on the circumstances and would show any loss which might be accruing. This is, of course, of particular importance in operations where the operator has the rate of usage within his control, such as in the case of spraying refrigerator cabinets. Other conditions which might warrant such a check would be where there is a danger of pilferage after the material has been released.

Physical Inventory

One of the items listed as a basic consideration was that standard costs would supply a basis for costing inventories. The aspect to be considered here as a by-product is not that of a pricing base, but instead the facility with which the records can be used in the physical problem of costing the physical inventory. The pricing of such an inventory for most manufacturing concerns creates quite a problem. Without standard costs it is generally necessary for an experienced cost person to analyze each item to see that it is evaluated correctly from an inventory pricing viewpoint. However, with cost standards, revised at inventory time for the new year, it is possible to use less experienced personnel for pricing and yet attain satisfactory accuracy. This is of considerable importance because if the older, experienced people are used for pricing the physical inventory, it generally means that something else must suffer, since the inventory is usually an annual proposition. Thus the cost organization cannot be organized to handle it as a regular part of its everyday duties.

Financial Planning

This topic might be considered as cost control if a broad inter-

pretation of that term were taken. However, here it is being considered separately, not as a by-product but because of its over-all importance.

It has long been considered by top management that one of its principal difficulties is gathering facts in an integrated manner. One of the real values of a standard cost routine is that it does provide the financial member of the staff with the opportunity to present to the management a picture of operations in such a way that the figures may be easily and quickly analyzed and responsibility assigned. As a consequence of this, the reports will also show cost trends in such a clear manner that projections can be made and financial plans mapped accordingly.

Conclusion

It has not been the intent in a brief discussion of this type to offer any concrete suggestions which the reader might put into operation tomorrow. Each phase of the subject would have to be much more detailed for that purpose. Rather, it has been the intention to provide some thought-provoking comments, so that persons using standard cost routines might look them over to see if they are using them to best advantage.

OUR OPEN FORUM

Prices, Costs, and Profits

Editor, N. A. C. A. Bulletin:

In the 1945 *Year Book* of the N. A. C. A., a series of articles appeared by Edwin G. Nourse and Charles C. James on the subject of "Cost Finding, Price Determination, and Industrial Capacity." Mr. Nourse is essentially an economist, whereas Mr. James is a cost accountant. The widely diverging opinions expressed by the authors is typical and indicates clearly the chasm separating the two fields.

As both an economist and a cost accountant, I should like to express my views on the subject. Mr. Nourse contends that the lowering of prices will produce sufficient additional markets to allow the manufacturer to maintain his high over-all profits while reducing his unit profits. Further, he contends, the end result will be a flattening of the business cycle. If it were possible to induce the majority of business men to adopt this attitude and put it into effect at one and the same time, there would undoubtedly be a large increase in our national sales. Mr. James, however, shows conclusively that the resultant increase in sales could not possibly compensate for the necessary price cuts.

Mr. Nourse has not considered the fact that all manufacturers are not equally efficient. The human element alone will prevent manufacturers, although in the same field, of equal size, and operating under identical conditions, from operating at the same rate of profit. As soon as we encounter the situation of many manufacturers producing the same product at varied rates of profit, the problem of the marginal producer is raised. If prices are cut by the more efficient concerns, this marginal producer will have to drop out since he will no longer be able to operate at a profit. This in turn brings about unemployment and starts us again on the depression swing of the business cycle. While the efficient business may require additional labor to meet the increased market for its product, it will obviously be unable to absorb all displaced labor.

As price cutting continues, more producers will have to drop out, and eventually we will find that the most efficient producer has a monopoly. Prices immediately begin to go up, human nature being what it is. Shortly the increased prices entice others into the field, and we are off on the same old merry-go-round.

Price cutting in itself will not solve the problem. Even the economies which may be obtained by efficient cost analysis will not compensate for the price cutting that would be necessary to obtain a sufficiently large market to pay for the lessened unit prices. In the United States we probably have a smaller degree of distinction among the economic classes than in any other country in the world. Still, these classes are far enough apart; a few

cents' price decrease will not bring an article previously available only to the middle income brackets within the reach of the lower income brackets. Much more substantial reductions are required to bring about such a result.

It is the job of the cost accountant and the economist to determine present costs, predict the future trends of business, and set prices accordingly. Both must work together to attain the ultimate in efficiency. Prices may be safely cut only when they produce a market large enough to allow the manufacturer to retain his profits at their normal level. Such a point is reached only when a technological improvement in the industry enables all manufacturers in the field to reduce their prices and also their costs. In this way the product is sold at a greatly reduced price but with the same per cent of unit profit. I should like to emphasize here the phrase "unit profit," which I have used deliberately. A business man is not willing to invest more capital and incur the added risks of higher production unless he is compensated by increased over-all profits. Thus reducing the unit profit is not the answer. The answer is to reduce the cost. And I repeat that while the cost accountant can help by efficient cost analysis and presentation to bring about lower unit costs, this in itself is not sufficient. The combination that is needed to attain the desired end is not merely that of the economist and the accountant, but is fourfold, that is, economist, accountant, scientist, and engineer.

DUMONT H. MEINHOLD,
Los Angeles Chapter.

POSTWAR PRICING AND COST ACCOUNTING

Editor, N. A. C. A. Bulletin:

Harry Howell has raised many interesting points in his article in the *Bulletin* of November 15, 1945. I think we may all agree that business should attempt a measure of self-help, but I am afraid Mr. Howell's exposition raises a number of extremely controversial points. The first concerns the matter of definition of terms and classification of costs. I will agree at once that it is the function of the N. A. C. A. and other organizations "to give the terms used in cost and financial accounting precision of meaning and exactness of definition" (p. 224). Unfortunately, the article contains some definitions that certainly are not found in existing literature. For example, I had always thought that fixed and constant costs were synonymous, but the distinction somehow escapes me. There is, moreover, some confusion apparent in these definitions. Specifically, constant costs, according to Mr. Howell, do not "mean those costs which would go on even if the business stopped running; these are better termed perhaps *minimum costs.* Instead it means that group of costs . . . which remains very largely independent of the volume of business" (p. 222). As illustrations Mr. Howell mentions fixed power costs, maintenance to prevent deterioration, etc. Now these are precisely the costs which many of us would classify as semivariable. They are the fixed components of semivariable costs which go on when the business *does* stop running.

The next point Mr. Howell makes concerns the minimizing of fixed costs. I think that possibly the emphasis is wrong. With a given plant, fixed costs can be minimized by getting rid of a portion of it, or substituting manual for mechanical labor. These fixed costs arise from what the economists call "sunk" costs, that is, investment in capital assets which produce a continuing burden of charges irrespective of plant output. The remedy is not in "capital and financial adjustments, changes in plant investment, and the fundamental structure of the corporation" (p. 225) unless the industry is clearly suffering from chronic excess capacity. For the representative concern, the effort should be in the direction of expanding production to secure ***minimum unit costs*** of production through the spreading of fixed charges over a greater volume. It is precisely, as Mr. Howell has well put it (p. 216), full utilization of facilities, at a profit, that should be management's aim.

This brings us to the matter of differential costs and the illustration supporting this topic (Exhibit 2, p. 228). Is it really correct to say that any price above $40 may be quoted on the additional business? Differential costs are, or should be, logically used where a segregation of markets is possible. Nobody is trying to get into a movie at 6 p.m. at 11 a.m. prices. No one tries to put through a long-distance call at 10:30 a.m. and expects to get charged at night rates. These are different markets, and differential cost analysis performs a highly useful function in enabling a concern to take on additional business without spoiling the market for its regular business. The result is a maximization of profits and, expressed in terms of the much maligned historical costs, a further decrease in the average ***unit production costs.*** Where such a segregation of markets is not possible, the result is merely price discrimination, ***legal*** discrimination prohibited by the Robinson-Patman Act and many of our state Fair Trade and Price Maintenance laws. Wholly aside from the legal implications, it simply is not good business to quote different prices in unsegregated markets unless such price differentials can be justified on the basis of savings in methods of production, sale, or delivery (see Robinson-Patman Act). Why, in the absence of market segregation, should we quote a price of $45 or $50, on the assumption that all our fixed charges have already been absorbed by another part of our production line?

Let us go on to Exhibit 3 (p. 231) and the case of salesman A who produces no profit. Now to argue that to fire salesman A would result in a business loss because his contribution to fixed charges would have to be absorbed by salesmen B and C is to fly in the face of common sense. Of course, fire salesman A, but be sure to hire another salesman who will not only take over the fixed charges, but will contribute some profit to the business.

Next, there is the matter of advertising designed to prevent price competition, which Mr. Howell wants to treat as a reduction of price. Does this mean that it is a reduction of sales revenue? If this argument is

pushed to its extreme, all expenses are price or revenue reductions, since they all must come out of the sales dollar.

Finally, in my opinion, depreciation, no matter how one looks at it, *is* a cost of production and distribution, not a part of the profit margin.

The above comments are in no way intended to detract from a truly excellent article. But before we rush in to embrace a new philosophy, it might be well to stop, look, and ponder.

CHARLES J. EGGEMAN,
New York Chapter.

INSTALLING AN INCENTIVE WAGE PLAN

Editor, N. A. A. C. Bulletin:

The writer was much interested in the article by Charles M. Reinherr and Paul Griek which appeared in the *N. A. C. A. Bulletin* of January 1, 1946. As bonus is paid to both direct and indirect labor, wouldn't it have been feasible to set up a standard that would include both types of labor? For instance, if as the article states, the direct and indirect labor are about evenly divided, then a standard of one hour for direct labor could be increased to two hours to cover both direct and indirect labor. Then the total of direct and indirect labor for the payroll period would be charged against the production results. This should have a tendency to control indirect labor, as direct labor became more efficient, without having the increased direct labor efficiency offset in part at least by higher indirect labor costs.

Reference is also made to page 386, which reads, "The standards finally set were based on the time studies but were adjusted to a point where the then current rate of production would be at the approximate break-even point in the incentive wage calculation." May the writer understand from the foregoing that if under standards, the efficiency or productivity was 80 per cent, that 80 per cent was set as the starting point? If so, very well. There is just a hint in the statement, however, that standards were adjusted to show the break-even point at 100 per cent. From a personal standpoint it would seem advisable to start at 80 per cent, especially if the results against standard showed this to be the actual results.

It is presumed, that for comparative purposes, records are maintained which will point out lags in individual departments or shifts, so correctives can be applied to overcome such lags as they occur.

VAL. C. SCHMIDT,
Grand Rapids Chapter.

DEPRECIATION AND THE ENGINEER

Editor, N. A. C. A. Bulletin:

In the December 1, 1945, issue of the *Bulletin,* Professor Paul T. Norton of the Virginia Polytechnic Institute sets forth the view that heavier depreciation allocations during the early years of life of an asset may hold advan-

tages in many cases. He suggests this view because of its soundness and not as an advocate of a "tax incentive" expedient for he notes the possible "tax penalty" of tomorrow.

Because the problem involves cash payments for taxes, and differences in the tax besides, it would seem that managements and the Treasury Department are confronted with taking another risk. Despite the carry-back and carry-forward provisions of the tax law, the use of different depreciation rates or procedures would result in differences in total tax payments for the same period of years and identical net earnings, if it is assumed that there will be wide changes in earnings and perhaps changes in tax rates during the period. The trouble in the problem is the need to forecast the course of these two variables.

It probably can be demonstrated that strict adherence to established practice does not necessarily mean strict fairness for different industries or companies. Under these conditions would it not be sound to seek equal tax reduction during the entire life of any asset for each dollar invested in fixed assets during a given year by any one in the country? With this basis established the cost accountant could then turn to the calculations which would promote replacements where these would be economical.

ARTHUR P. NONWEILER,
Toledo Chapter.

COST CURRENTS

Bad Debt Recoveries and the Excess Profits Tax—Regulations 112 have now been amended to permit the exclusion from excess profits net income of recoveries of pre-1940 bad debts regardless of whether the taxpayer uses the reserve method or the direct charge-off method. Such exclusion has always been allowed in connection with the latter method, but the Bureau of Internal Revenue early took the position that the rule did not apply under the reserve method. The new amendment is in line with the decision of the Tax Court in the Boyd-Richardson case (5 T. C. No. 83) which was reported in the October 15, 1945, *Bulletin*. This decision held that since the same net income results regardless of whether the recovery is credited to an income account or to a bad debt reserve, the exclusion applies for excess profits tax purposes regardless of the accounting method followed:

Improper Accumulation of Surplus—In view of the rapid expansion of corporate surpluses and with the cessation of the need for wartime expansion of plant facilities there is reason to believe that the Treasury Department will check corporate returns more closely for evidences of improper surplus accumulation. Such accumulation may subject the corporation to a

penalty surtax. Section 102 of the Internal Revenue Code reads in part as follows:

a. Imposition of Tax—These shall be levied, collected, and paid for each taxable year (in addition to other taxes imposed by this chapter) upon the net income of every corporation if such corporation. . . . is formed or availed of for the purpose of preventing the imposition of the surtax upon its shareholders or the shareholders of any other corporation, through the medium of permitting earnings or profits to accumulte instead of being divided or distributed, a surtax equal to the sum of the following:

27½ per centum of the amount of the undistributed section 102 net income not in excess of $100,000, plus
38½ per centum of the undistributed section 102 net income in excess of $100,000.

c. Evidence Determinative of Purpose—The fact that the earnings or profits of a corporation are permitted to accumulate beyond the reasonable needs of the business shall be determinative of the purpose to avoid surtax upon shareholders unless the corporation by the clear preponderance of the evidence shall prove to the contrary.

Whether surplus is accumulated beyond "the reasonable needs" of the business is dependent on the facts in each case. For a review of recent decisions in this field readers are referred to an article "Section 102—A Postwar Tax Problem" by Morris Goodman, appearing in the March, 1946, issue of *The Journal of Accountancy*.

Regulations Issued on Pay-Price Action—Supplementary regulations recently issued with the joint approval of the National Wage Stabilization Board, the Office of Economic Stabilization, and the OPA, provide the basis for institution of wage increases and possible subsequent price relief under the President's Executive Order 9697 issued February 14, 1946, establishing a new wage-price stabilization policy. Included in the regulations are the following:

That wage increases must have been actually put into effect before it can be used as the basis for an application for compensatory price relief.

Wage increases contingent on a subsequent price increase by OPA are not permitted.

An employer may make an unapproved wage increase until March 15 without waiving the right to seek approval later, but the approval must be sought within 30 days after the increase is first reflected in current pay rolls.

Wage increases which an employer does not intend to use as the basis for compensatory price relief may be instituted without approval by the NWSB. If he changes his mind and secures approval of the increase, OPA will entertain his application for price relief in the same manner as any other case.

To eliminate delays an employer may send his data to OPA along with his application for price relief while his application for approval of wage increases is pending with the NWSB.

Decentralization will be employed to the greatest possible extent. Regional offices of OPA and NWSB will have greater authority to pass upon applications.

Advance approval of the following wage increases is permitted:

a. Any increase lawfully made before February 14, 1946.
b. Any increase made upon the recommendation of a Government agency prior to the date of the Executive Order.
c. Increases made by any person who employs eight or less employees.
d. Increases providing for a minimum of six paid holidays a year.
e. Increases providing for night shift differentials not exceeding 5 cents for a second shift or 10 cents for a third shift.
f. Increases conforming to authorized industry or area wage patterns.

CHAPTER MEETINGS

Chapter / *Meeting Place*	*Date*	*Subject and Speaker*
Akron The Portage Hotel	16	Panel Discussion: *Current Cost Problems* Chairman: A. J. Keiler, R. H. Freitag Mfg. Co.
Albany	16	*Textile Cost Accounting* M. W. Morris, Assistant Treasurer, E-Z Mills, Inc.
Atlanta Atlanta Athletic Club	16	*A Case Study of a Standard Cost System in a Manufacturing Plant* William E. Perry, Controller, The Scranton Lace Co.
Baltimore Emerson Hotel	16	*Establishment of Standard Procedures for Office Operations* C. E. Lindquist, Assistant Comptroller of Manufacture, Western Electric Co., Inc.
Binghamton Hotel Arlington	11	*Pension Plan Costs and Benefits* H. B. Wickes, Vice President, Security Mutual Life Insurance Co.
	25	*Professional Training for Business and Government* Paul M. O'Leary, Professor of Economics and Dean of the School of Business and Public Relations, Cornell University.

Chapter *Meeting Place*	*Date*	*Subject and Speaker*
Birmingham Hotel Thomas Jefferson	16	*Personnel Development and Organization Requirements—Accounting* Warren Whitney, Manager, National Cast Iron Pipe Co.
Boston Hotel Vendome	17	*The Public Interest in Cost Accounting* Thomas H. Sanders, Professor of Accounting, Graduate School of Business Administration, Harvard University.
Bridgeport Stratfield Hotel	18	*Current and Future Trends in Wage Incentives and Wage Payments* George W. Chane, Supervisor, Special Service Staff, Ernst & Ernst.
Brooklyn Central Branch, Y. M. C. A.	17	*Ditstribution Costs and Their Control* Lyndon O. Brown, Partner, Stewart, Brown & Associates.
Buffalo Covenant Church	25	*Looking Through the Telescope* Arthur C. Horrocks, Public Relations Director, The Goodyear Tire & Rubber Co.
Calumet Gary Hotel	16	*Industrial Planning Aided by Accounting* Mason Smith, Partner, McKinsey, Kearney & Co.
Cedar Rapids Hotel Roosevelt	17	*Making the Office Pay a Profit* P. A. Lawrence, Methods Research Div., Burroughs Adding Machine Co.
Chattahoochee Valley Cherokee Lodge	11	Panel Disscussion: *Standard Cost System in a Manufacturing Plant* Panel of Seven.
Chattanooga Hotel Patten	18	*A Case Study of a Standard Cost System in a Manufacturing Plant* William E. Perry, Controller, The Scranton Lace Co.
Chicago Furniture Club of America	25	*Time Study for Cost Control* R. H. Landes, Manufacturing Engineer, Hawthorne Works, Western Electric Co.
Cincinnati Hotel Gibson	18	*Future Opportunities for the Cost Accountant* S. A. Marsh, Associate Professor of Accounting, Washington University.
Cleveland Carter Hotel	18	*The Analysis of Distribution Costs for Control Purposes* J. Brooks Heckert, Associate Professor of Accounting, Ohio State University.
Columbus Fort Hayes Hotel	15	*Meeting Competition with a Sound Cost Program* A. E. Grover, Cost Consultant.
Cuba Habana Yacht Club	24	*Ideas on Accounting for Brokers* Thomas E. Alexander, Comptroller, Manrara & Perez Daple.
Dallas Melrose Hotel	19	*Postwar Profits Through Cost Accounting* Erwin Heinen, Southwestern Systems Manager, Ernst & Ernst.

Chapter / Meeting Place	Date	Subject and Speaker
Dayton Van Cleve Hotel	9	*Postwar Pricing Policies and Accounting* Mason Smith, Partner, McKinsey, Kearney & Co.
Decatur Leland Hotel	18	*Preparation and Use of Office Manuals* David Morgan, General Auditor, R. G. LeTourneau, Inc.
Denver Cosmopolitan Hotel	25	*Importance of Accounting Records in the Operation of the Home Loan Bank System* Frederick W. Ruble, President, Federal Savings & Loan Association.
Des Moines Commodore Hotel	19	*Wartime Emergency Facilities—Their Effect on Cost and Financial Statements* J. Leonard Penny, Hall-Penny-Jackson & Co.
Detroit Detroit-Leland Hotel	18	Debate: *Resolved that Ability to Pay Should Be an Explicit Factor in the Settlement of Wage Disputes* Affirmative: Wayne University Negative: University of Michigan
Erie Moose Club	15	*Costs for Different Purposes* E. J. Hanley, Secretary and Treasurer, Allegheny-Ludlum Steel Corp.
Evansville McCurdy Hotel	18	*Wage Stabilization in the Postwar Era* Edwin Vallon, Wage Stabilization Director, National War Labor Board.
Fort Wayne Chamber of Commerce	16	*Financial Statements for Management Use* Howard C. Greer, Vice President and General Manager, Kingan & Co.
Fort Worth Blackstone Hotel	18	Panel Discussion: *Accounting for a Bus Company* E. W. Stephens, Chief Accountant, and J. S. Judd, Auditor of Revenue Accounts, Southwestern Greyhound Lines.
Grand Rapids Rowe Hotel	2	*Human Factors in Production Cost Controls. Are These Hidden?* C. Don Modica, Director of Research and Training, Management Dynamics.
	16	*Limitations of Cost Accounting in Connection with Price Determination* W. A. Paton, Professor of Accounting, School of Business Administration, University of Michigan.
Greenwich Hugo's Piccadilly Restaurant, Stamford	16	*Inventory Valuations and Their Significance in Reports for Top Management* Fred J. Otterbein, Assistant Controller, General Foods Corp.
Hagerstown Hotel Alexander	4	Open Forum: *Current Accounting Trends*
	18	*Operation of a Cost System in a Small Manufacturing Plant* C. B. Nickerson, Associate Professor of Accounting, Graduate School of Business Administration, Harvard University.
Hampton Roads Norfolk Yacht and Country Club	19	*Place of Cost Accounting in the Postwar Competitive Market* Clinton W. Bennett, Partner, Cooley & Marvin.

Chapter *Meeting Place*	*Date*	*Subject and Speaker*
Harrisburg Penn-Harris Hotel	9	*Scheduling Office Production* D. M. Magor, Controller, York Corp.
Hartford Farmington Country Club, Farmington	2	*Costs and the Profit Structure* Charles Reitell, Partner, Stevenson, Jordan & Harrison, Inc.
	16	*Budgeting for Postwar Progress* Jesse G. Kline, Chief Cost Accountant, The Atlantic Refining Co.
Houston Y. M. C. A.	17	*Postwar Profits Through Cost Accounting* Erwin Heinen, Southwestern Systems Manager, Ernst & Ernst.
Indianapolis Lincoln Hotel	17	*Normal Capacity and Its Uses* L. W. Downie, President and General Manager, Kelsey Wheel Co., Ltd.
Jackson Heidelberg Hotel	18	*The Principles and Application of Internal Control* Thomas B. Nobles, Assistant Treasurer, Stockham Pipe Fittings Co.
Jamestown Hotel Jamestown	23	*Internal Auditing Control* Lawrence V. Messersmith, Messersmith & Gilbert.
Kansas City Hotel President	15	*Production Control* L. W. Perkins, General Production Manager, International Harvester Co.
Lancaster Hotel Sutter, Lititz	12	*The Accountant's Part in Personnel Relations* John H. McDonald, Vice President, National Broadcasting Co.
Hotel Brunswick, Lancaster	26	*Types of Industries to Which Standard Costs Are Applicable and Why* A. R. Kassander, Lybrand, Ross Bros. & Montgomery.
Lehigh Valley Hotel Traylor, Allentown	12	*Budgets* L. Roy Roland, Plant Manager, Lebanon Steel Foundry.
Hotel Easton, Easton	26	*A Case Study of Standard Cost Installation* E. A. Green, Chief Auditor, Armstrong Cork Co.
Los Angeles Scully's Cafe	16	*Cost Accounting in the Education of Management* J. Hugh Jackson, Dean, Graduate School of Business, Stanford University.
Louisville Brown Hotel	16	*Accounting Terminology in Annual Reports* W. H. Franklin, Assistant Controller, Caterpillar Tractor Co.
Maine (State of) Penobscot Valley Country Club, Bangor	19	*Cross Indexing vs. Pigeonholing—The Industrial Engineering Approach to Solving the Accountant's Problems* G. B. Heddendorf, Department of Education, International Business Machines Corp.
Memphis Hotel Gayoso	17	*Labor Relations* Fred M. Karches, Director of Operation, Rice-Stix.

Chapter / Meeting Place	Date	Subject and Speaker
Milwaukee Milwaukee Athletic Club	15	*Human Relations in the Transition Period. Are These Costs Controllable?* Don D. Lescohier, Professor, University of Wisconsin.
Minneapolis Curtis Hotel	11	Panel Discussion: *Various Types of Standard Costs* Chairman: Will Doll, Secretary and Comptroller, Raymond Laboratories, Inc.
	25	*Relation of Time Study to Cost Control* Ray Phillips, Industrial Engineer, Dayton Rogers Mfg. Co.
Muskegon Occidental Hotel	15	*Product Pricing* Fred L. Heath, President, Fred L. Heath & Co.
Nashville Andrew Jackson Hotel	19	*A Case Study of a Standard Cost System in a Manufacturing Plant* William E. Perry, Controller, The Scranton Lace Co.
New Hampshire The Carpenter Hotel, Manchester	16	*Cost Accounting in the Postwar Competitive Market* Norman H. S. Vincent, Robert Douglas & Co.
New Haven Hotel Garde	23	*Proper Presentation of Reports to Management* George L. Nohe, Partner, O. F. Taylor & Co.
New Orleans Jung Hotel	17	*Distribution Costs* William P. Carr, Associate Professor, Loyola University.
New York Hotel New Yorker	22	*Controlling and Scheduling Postwar Production* Courtney Johnson, Assistant to the Chairman, Studebaker Corp.
Newark Hotel Robert Treat	25	*Better Operating Control Through Standard Costs* Eric A. Camman, Partner, Peat, Marwick, Mitchell & Co.
Peoria Jefferson Hotel	13	*State Sales Taxes* Henry G. Miller, Supervisor, Rules and Regulations Section, Department of Finance, State of Illinois.
	17	*Prospective Prices and Prosperity* Chester A. Phillips, Dean, College of Commerce, University of Iowa.
Philadelphia Walt Whitman Hotel, Camden, N. J.	11	*Accounting in a Decentralized Organization* A. MacGillivray, Director of Accounts and Finance, RCA Victor Div., Radio Corporation of America.
Pittsburgh Fort Pitt Hotel	17	*Some Special Problems of Distribution Costs* J. Brooks Heckert, Associate Professor of Accounting, Ohio State University.
Portland Heathman Hotel	16	*Accounting for Gas Production and Its By-Products* Cecil V. Griffith, Chief Accountant, Portland Gas & Coke Co.

Chapter *Meeting Place*	*Date*	*Subject and Speaker*
Providence Narragansett Hotel	15	*Control of Research and Development Costs* Ronald H. Robnett, Associate Professor of Accounting, Massachusetts Institute of Technology.
Reading Wyomissing Club	12	*One Plant's Production Control and Its Association with Accounting Control* H. A. Hartkopf, Production Manager, Weston Electrical Instrument Corp.
Richmond Hotel John Marshall	18	*The Place of Cost Accounting in the Postwar Competitive Market.* Clinton W. Bennett, Partner, Cooley & Marvin.
Rochester Hotel Seneca	17	*Distribution Costs* Albert H. Foster, Director of Route Surveys and Market Analyses, Borden Farm Products.
Rockford Hotel Faust	18	*Personnel Training* M. H. Simmonds, Director of Personnel and Sales Training, Systems Division, Remington Rand, Inc.
Saginaw Valley Durant Hotel	18	*The Relationship of the Company Accountant and the Outside Auditor.* William A. Paton, Professor of Accounting, University of Michigan.
St. Louis Coronado Hotel	9	*Budgeting—A Case Study* K. Y. Siddall, Comptroller, The Procter & Gamble Co.
San Francisco Engineer's Club	23	*Standard Costs and Inventory Valuation and Control* C. T. Redmond, Comptroller, Columbia Steel Co.
Scranton Hotel Casey	15	*A Case Study of a Standard Cost System* Earl A. Green, Chief Auditor, Armstrong Cork Co.
South Bend LaSalle Hotel	15	*Financial Statements for Management Use* Howard C. Greer, Vice President and General Manager, Kingan & Co.
Springfield Hotel Sheraton	17	*Balance Sheet and Profit and Loss Accounts for Construction Contractors* Roy M. Abagnale, Management Consultant, Hampden Brass Co.
Syracuse Hotel Syracuse	18	*Standard Costs* Charles Reitell, Partner, Stevenson, Jordan & Harrison, Inc.
Toledo Secor Hotel	16	*Education for Business* W. C. Weidler, Dean, College of Commerce and Administration, Ohio State University.
Tri-Cities Hotel Fort Armstrong, Rock Island	16	*The Postwar Financial Picture* W. M. McKenzie, Vice President, Commercial National Bank.

Chapter Meeting Place	Date	Subject and Speaker
Tulsa Mayo Hotel	17	*Plant Accounting in Large Industry* W. R. Dunn, Chief Accountant, Colorado Fuel & Iron Corp.
Utica Hotel Hamilton	8	*Cost Accounting in the Postwar Competitive Market* Clinton W. Bennett, Partner, Cooley & Marvin.
Wabash Valley Terre Haute House, Terre Haute	9	*Expansion from a Small to a Large Operation* Foster Miles, Secretary-Treasurer, Smith-Alsop Paint & Varnish Co.
Washington Hotel 2400	17	*Control of Costs and Reports to Management in Paper Manufacture* E. Wallace Weston, Comptroller, Weston Paper & Mfg. Co.
Wichita Broadview Hotel	16	*Plant Accounting in Large Industry* W. R. Dunn, Assistant General Auditor, Colorado Fuel & Iron Corp.
Williamsport Lycoming Hotel	16	*The History of Accounting* Maurice E. Peloubet, Partner, Pogson, Peloubet & Co.
Worcester Sheraton Hotel	18	*Overhead Distribution* Ronald H. Robnett, Associate Professor of Accounting, Massachusetts Institute of Technology.
York Hotel Yorktowne	17	*Manufacturing Costs* Leonard Bedell, Plant Manager, Electronics Plant, Sperry Gyroscope Co.
Youngstown Tippecanoe Country Club	17	*Cost Problems in New Industries and New Products*

CHAPTER RATINGS

For Nine Month Ending February 28, 1946

	Applications, Reinstatements, and Transfers	Member Attendance	Publications	Publicity	News Letters	Program	Employment	Board Meetings	Meeting Notices and Reports	Bulk Mailing	Financial Budget and Report	Special Activities	Total
1. Providence	1115	1034	370	195	180	200	40	540	115	50	75	185	4099
2. Birmingham	1117	1061	428	168	180	200	40	480	120	50	75	120	4039
3. Dallas	1125	700	318	134	180	200	40	446	120	50	75	430	3818
4. Atlanta	1125	607	234	164	180	200	40	506	120	50	75	365	3666
5. Newark	825	768	310	181	180	200	40	450	120	50	75	375	3574
6. New Hampshire	961	938	113	162	180	200	33	510	120	50	75	225	3567
7. Scranton	1039	728	223	135	180	200	39	420	120	50	75	340	3549
8. Hampton Roads	1090	746	308	166	180	200	36	450	103	50	75	120	3524
9. Los Angeles	1008	661	365	142	180	175	40	390	112	50	75	295	3493
10. Des Moines	1054	861	105	50	140	200	39	450	120	50	75	345	3489
11. Memphis	1082	707	115	72	180	200	40	464	110	50	75	305	3400
12. Indianapolis	894	598	260	114	180	200	40	480	112	50	75	380	3383
13. St. Louis	515	772	375	190	180	200	40	479	120	50	75	380	3376
14. Worcester	636	603	420	177	160	200	40	390	120	50	75	500	3371
15. Philadelphia	1027	699	255	186	180	200	40	450	110	50	75	80	3352
16. Akron	959	528	350	85	140	200	39	478	120	50	75	290	3314
17. Houston	975	572	190	170	175	200	40	480	115	50	75	260	3302
18. Toledo	838	593	292	175	180	200	40	540	120	50	75	180	3283
19. Minneapolis	975	881	156	124	180	200	39	390	120	50	75	90	3280
20. Milwaukee	769	598	295	121	180	200	40	448	120	50	75	365	3261
21. Erie	911	567	252	150	180	200	40	450	120	40	75	245	3230
22. Columbus	1002	522	256	132	180	200	37	472	120	50	75	183	3229
22. Peoria	659	554	215	191	180	200	40	445	120	50	75	500	3229
24. New Orleans	1025	748	246	157	180	175	40	388	110	40	75	40	3224
25. Jamestown	1057	639	98	175	180	200	40	390	120	50	75	185	3209
26. Chicago	659	688	235	176	180	200	39	479	120	50	75	270	3171
26. Utica	991	768	115	174	180	200	32	434	112	50	75	40	3171
28. Springfield	497	629	268	179	180	200	40	476	120	50	75	420	3134
29. Cleveland	533	863	215	145	180	200	40	479	120	50	75	230	3130
30. South Bend	969	696	98	114	180	200	38	390	112	40	75	215	3127
31. Bridgeport	592	574	235	191	180	200	40	489	120	50	75	365	3111
32. Baltimore	849	537	270	149	180	200	40	480	120	50	75	155	3105
33. New Haven	867	656	312	156	160	200	40	420	120	40	75	50	3096
34. Williamsport	1055	543	132	171	180	200	39	388	115	50	75	145	3093
35. Fort Wayne	979	554	234	136	160	200	40	478	120	50	75	65	3091
36. Denver	548	656	272	147	180	200	40	510	120	50	75	275	3073
37. Rochester	575	680	270	186	180	200	39	420	120	50	75	270	3065
38. Boston	577	655	230	171	180	200	40	510	120	50	75	250	3058
39. Maine	950	600	105	170	180	200	19	407	120	40	75	170	3036
40. Dayton	613	607	330	195	160	200	40	510	120	50	75	130	3030
41. Hartford	719	643	295	195	180	200	40	390	120	50	75	120	3027
42. Grand Rapids	805	670	84	75	180	200	40	413	120	40	75	310	3012
43. Richmond	1015	872	218	45	100	175	10	304	95	40	75	40	2989
44. Wabash Valley	958	572	195	106	180	200	19	450	112	50	75	70	2987
45. Nashville	560	838	390	78	100	200	39	536	80	30	75	40	2966

	Applications, Reinstatements, and Transfers	Member Attendance	Publications	Publicity	News Letters	Program	Employment	Board Meetings	Meeting Notices and Reports	Bulk Mailing	Financial Budget and Report	Special Activities	Total
46. Tri-Cities	600	565	252	180	180	200	39	450	120	50	75	220	2931
47. Syracuse	975	584	72	108	120	200	35	533	120	50	75	40	2912
48. Evansville	1086	669	98	56	160	175	17	401	114	30	25	65	2896
49. Brooklyn	700	622	195	182	160	200	38	417	120	50	75	135	2894
50. New York	685	654	230	142	180	200	39	450	120	50	75	45	2870
51. Muskegon	1046	807	..	73	60	200	30	445	48	40	75	45	2869
52. Chattahoochee Valley	1064	1016	..	114	100	200	19	175	103	50	..	..	2841
53. Lehigh Valley	550	616	85	190	180	200	37	418	115	40	75	315	2821
54. Kansas City	572	559	125	157	180	200	19	508	120	40	75	255	2810
55. Decatur	922	485	162	111	180	200	37	392	120	50	75	65	2799
56. Detroit	438	622	270	123	180	200	40	420	120	50	75	260	2798
57. Lancaster	463	552	150	160	180	200	40	450	120	50	75	355	2795
58. Washington	1030	567	10	123	180	200	29	386	108	50	75	20	2778
59. Pittsburgh	497	569	345	153	140	200	40	499	120	50	75	50	2738
60. San Francisco	537	614	210	142	180	200	40	446	120	50	75	100	2714
61. Jackson	1039	449	..	94	120	200	37	479	114	40	75	45	2692
62. Chattanooga	536	617	156	101	160	200	38	448	120	50	75	190	2691
63. Wichita	315	534	330	106	170	200	40	474	115	50	75	240	2649
64. Saginaw Valley	777	599	98	139	140	200	39	349	120	40	75	70	2646
65. Albany	653	582	90	155	180	200	21	448	120	50	50	75	2624
66. Calumet	772	604	..	75	180	200	34	448	120	50	75	50	2608
67. Hagerstown	408	615	98	136	180	200	40	412	120	50	75	215	2549
67. Buffalo	384	496	250	180	180	200	39	420	120	50	75	155	2549
69. Greenwich	550	577	105	148	175	200	40	475	100	10	75	80	2535
70. Youngstown	592	395	306	156	180	175	40	358	107	50	75	90	2524
71. Cincinnati	621	560	162	83	120	200	40	403	108	50	75	90	2512
72. Rockford	386	693	138	55	120	200	40	402	120	40	75	200	2469
73. Reading	330	548	234	145	180	175	38	480	120	40	75	90	2455
73. York	165	541	222	191	160	200	40	505	102	50	75	190	2441
75. Harrisburg	490	592	..	126	160	200	40	439	120	40	75	110	2392
76. Cedar Rapids	665	535	..	102	120	200	29	432	96	40	25	40	2284
77. Tulsa	700	498	..	52	55	200	28	500	108	40	75	..	2256
78. Cuba	295	413	168	177	180	200	37	510	120	50	75	20	2245
79. Binghamton	323	587	90	86	175	200	27	355	112	30	75	165	2225
80. Portland	377	544	..	60	80	200	25	495	120	30	70	50	2051
81. Louisville	566	554	72	73	..	200	30	180	104	40	70	..	1889
82. Fort Worth	700	373	..	66	20	..	10	178	78	..	..	..	1425
83. Hawaii	323	..	..	45	120	..	..	145	72	..	25	..	730

NOTES ON THE 1946 ANNUAL COST CONFERENCE

Advance preparations for the Twenty-seventh International Cost Conference to be held in New York City, June 17, 18, and 19, are forging ahead rapidly. While a great many final details are yet to be worked out, the various committees in charge are now ready to inform members about some of the plans in the making.

Sunday Afternoon Reception—On Sunday afternoon, June 16, from three to six o'clock in the world-famous Waldorf-Astoria Hotel, the Association will hold its Annual Reception for members. Arrangements for entertainment have been elaborately and excitingly planned. The customary refreshment hour will enable visiting members to renew old acquaintances and touch upon the lighter side of convention activities before settling down to the seriousness of technical sessions.

The importance of the Sunday Afternoon Reception is being stressed this year as an appropriate means for starting off with a bang. The Boards of Directors of the host chapters, that is, Brooklyn, Greenwich, Newark, and New York, will act as a committee on arrangements and will be on hand to extend the cordial hand of fellowship to all.

Ladies' Entertainment—Under the energetic leadership of Mr. and Mrs. Frederick L. Burns, a program of diversified activities is being formulated for the ladies attending the Conference. While technical sessions are in progress, the ladies will be occupied with sightseeing, shopping, luncheons, and entertainment of varied kinds—with a few surprises thrown in for good measure.

Members who expect to have their wives or daughters accompany them to the Conference should clearly indicate this fact on the advance registration cards which will be mailed out shortly.

Plant Visitations—The Hospitality Committee, under the chairmanship of George Kattenhorn, is planning a wide assortment of interesting events for members. Since the Conference this year is maintaining a wartime schedule of beginning technical sessions on Monday morning, no special time has been set aside for plant visitations. The Committee will make arrangements, however, in case there is demand for it, for members who wish to make plant visitations in the metropolitan area.

Golf—The Hospitality Committee has not overlooked the custom of earlier years when many members have found relaxation and comradeship in competing for the Donaldson Trophy. Because of the wartime schedule adopted for this year it has seemed appropriate to postpone a formal golf tournament for another year. This does not preclude, however, the possibility of arranging informal matches during the period of the Conference by members who want to try their skill on the green. The Hospitality Committee will gladly make suitable arrangements for such matches.